

CLAIMS

1 A metal oxide particle comprising a core part relatively rich in a ceria-zirconia solid solution and a surface layer relatively rich in a second metal oxide.

5 2 The metal oxide particle according to claim 1, wherein said core part and said surface layer each comprises a plurality of primary particles.

3 3 The metal oxide particle according to claim 1 or 2, wherein said second metal oxide is ceria.

10 4 The metal oxide particle according to claim 1 or 2, wherein said second metal oxide is zirconia.

15 5 The metal oxide particle according to claim 3 or 4, wherein said surface layer further comprises an oxide of at least one metal selected from the group consisting of alkaline earth metals and rare earths.

6 6 An exhaust gas purifying catalyst comprising a noble metal supported on the metal oxide particle according to any one of claims 1 to 5.

20 7 An exhaust gas purifying catalyst comprising platinum supported on the metal oxide particle according to claim 3.

8 8 An exhaust gas purifying catalyst comprising rhodium supported on the metal oxide particle according to claim 4.

25 9 A process for producing a metal oxide particle comprising a core part relatively rich in a ceria-zirconia solid solution and a surface layer relatively rich in a second metal oxide, the process comprising:

30 providing a sol containing at least a population of ceria-zirconia solid solution colloid particles and a population of second metal oxide colloid particles differing in the isoelectric point with each other,

35 adjusting the pH of said sol to be closer to the isoelectric point of said population of ceria-zirconia solid solution colloid particles than to the isoelectric point of said population of second metal

oxide colloid particles, thereby aggregating said population of ceria-zirconia solid solution colloid particles,

5 adjusting the pH of said sol to be closer
to the isoelectric point of said population of second
metal oxide colloid particles than to the isoelectric
point of said population of ceria-zirconia solid solution
colloid particles, thereby aggregating said population of
second metal oxide colloid particles onto said population
10 of ceria-zirconia solid solution colloid particles
aggregated, and

drying and firing the obtained aggregate.